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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,522	03/21/2001	Kenneth E. Madsen	1109.003CIP	3556
30636	7590	12/16/2005		
FAY KAPLUN & MARCIN, LLP 150 BROADWAY, SUITE 702 NEW YORK, NY 10038			EXAMINER NAHAR, QAMRUN	
			ART UNIT	PAPER NUMBER
			2191	
DATE MAILED: 12/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/813,522	Applicant(s) MADSEN ET AL.	
	Examiner Qamrun Nahar	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15 and 18-49 is/are rejected.
- 7) ☒ Claim(s) 10, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the appeal brief filed on 9/7/05.
2. The amendment filed on 06/08/2005 has been entered.
3. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 1-49 is withdrawn in view of applicant's amendment.
4. The rejection under 35 U.S.C. 102(b) as being anticipated by Heisch (U.S. 5,689,712) to claims 1-9, 11-15, 18-19, 22-44, 46, 48 and 49 is moot in view of new ground(s) of rejection.
5. The rejection under 35 U.S.C. 103(a) as being unpatentable over Heisch (U.S. 5,689,712) in view of Davidson (U.S. 5,664,191) to claims 20-21, 45 and 47 is moot in view of new ground(s) of rejection.
6. Claims 1 and 45-49 have been amended (see amendment filed on 06/08/2005).
7. Claims 1-49 are pending.
8. Claims 1-47 and 49 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
9. Claims 1-49 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,397,382 in view of Wu (U.S. 6,668,372).
10. Claims 1-9, 11-15, 18-19, 22-44, 46, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heisch (U.S. 5,689,712) in view of Wu (U.S. 6,668,372).

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11. Claims 20-21, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heisch (U.S. 5,689,712) in view of Wu (U.S. 6,668,372), and further in view of Davidson (U.S. 5,664,191).

12. Claims 10, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (See the Office Action, Mailed on 04/29/2004, par. 10 and 11).

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 1-47 and 49 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

15. Claims 1 and 45 are rejected under 35 U.S.C. 101 as not being *tangible* because there is no storing of tangible results. It is suggested that claims 1 and 45 be amended to recite “A **computer-implemented** method for monitoring ...”.

Claims 2-44 are rejected for failing to cure the deficiencies of the above rejected non-statutory claim 1.

16. Claims 46 and 47 are rejected under 35 U.S.C. 101 as not being *tangible* because there is no storing of tangible results. It is suggested that claims 46 and 47 be amended to recite “A **computer-implemented** system for monitoring ...”.

17. As per claim 49, merely claimed as a program representing a computer listing *per se* (computer readable program code), that is, descriptions or expressions of such a program and that is, descriptive material *per se*, non-functional descriptive material, and is not statutory because it is not a physical “thing” nor a statutory process, as there are not “acts” being performed. Such claimed programs do not define any structural and functional interrelationships between the program and other claimed aspects of the invention which permit the program’s functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the program’s functionality. In contrast, a claimed computer-readable medium encoded with a program defines structural and functional interrelationships between the program and the medium which permit the program’s functionality to be realized, and is thus statutory. **Warmerdam**, 33 F.3d at 1361, 31 USPQ2d at 1760. **In re Sarkar**, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). See MPEP § 2106(IV)(B)(1)(a).

It is suggested that claim 49 be amended to recite “Computer readable program code **embodied in a computer usable medium** for monitoring ...”.

Double Patenting

18. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., **In re Berg**, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); **In re Goodman**, 11 F.3d 1046, 29

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USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

19. Claims 1-49 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,397,382 in view of Wu (U.S. 6,668,372). The following example is given:

As per claims 17 and 44 of the instant application, Patent '382 claims (in claim 1):

A method for monitoring software code being executed in a target system having a bus and cache, said method comprising the steps of:

- (a) searching a range of addresses within the software code to identify a desired instruction;
- (b) replacing the desired instruction with an exception-generating instruction;
- (c) inserting an exception routine into an exception vector table, the exception routine having a cache-disabling instruction and a branch instruction branching to an address of the software code subsequent to the exception-generating instruction; and
- (d) execution the software code.

Patent '382 does not claim replacing the desired instruction with a program flow change instruction directing execution to a *buffer* or inserting a routine into *the buffer*. However, Wu teaches replacing the desired instruction with a program flow change instruction directing

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execution to a *buffer*; and inserting a routine into *the buffer* (column 2, lines 19-24; column 16, lines 1-11 and lines 20-25). Therefore, it would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the claimed method of Patent '382 to include replacing the desired instruction with a program flow change instruction directing execution to a *buffer*; and inserting a routine into *the buffer* using the teaching of Wu. The modification would be obvious because one of ordinary skill in the art would be motivated to reduce overhead penalties for run-time profiling.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 1-9, 11-15, 18-19, 22-44, 46, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heisch (U.S. 5,689,712) in view of Wu (U.S. 6,668,372).

Per Claim 1:

Heisch teaches a method for monitoring data and changing a behavior of a run time execution of software code in a target system (column 2, lines 23-33 and column 3, lines 42-52; storing trace data in a trace buffer is interpreted as monitoring data), said method comprising: (a) searching a range of addresses within the software code to identify a desired instruction (column 4, lines 5-14); (b) replacing the desired instruction with a program flow change instruction

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directing execution to an instrumentation code location, wherein the program flow change instruction is configured to change the behavior, relative to that of the desired instruction, of the run time execution of the software code; and (c) inserting a routine into the instrumentation code location, the routine having an output instruction and a branch instruction branching to an address of the software code subsequent to the program flow change instruction (column 4, lines 9-29 and lines 35-45). Heisch does not explicitly teach replacing the desired instruction with a program flow change instruction directing execution to a *buffer* or inserting a routine into *the buffer*. Wu teaches replacing the desired instruction with a program flow change instruction directing execution to a *buffer*; and inserting a routine into *the buffer* (column 2, lines 19-24; column 16, lines 1-11 and lines 20-25).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Heisch to include replacing the desired instruction with a program flow change instruction directing execution to a *buffer*; and inserting a routine into *the buffer* using the teaching of Wu. The modification would be obvious because one of ordinary skill in the art would be motivated to reduce overhead penalties for run-time profiling (Wu, column 1, lines 30-42).

Per Claim 2:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein the output instruction generates output to a trace buffer (column 4, lines 58-62).

Per Claim 3:

The rejection of claim 2 is incorporated, and Heisch further teaches wherein the trace buffer is disposed on the target system (column 4, lines 58-62).

Per Claim 4:

The rejection of claim 1 is incorporated, and Heisch further teaches comprising (e) storing information in an instrumentation table to undo said replacing (b) and said inserting (c) (column 3, lines 62-67 to column 4, lines 1-4).

Per Claim 5:

The rejection of claim 4 is incorporated, and Heisch further teaches wherein the instrumentation table is disposed on a host system communicably coupled to the target system (column 3, lines 62-67 to column 4, lines 1-4).

Per Claim 6:

The rejection of claim 4 is incorporated, and Heisch further teaches wherein said storing (e) comprises storing the desired instruction, address of the desired instruction, action to be performed by the program flow change instruction, address of the buffer, size of the routine, and an identifier associated with the action to be performed (column 4, lines 30-45).

Per Claim 7:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein the target system includes a cache and at least a portion of the software code executes externally of the cache (column 3, lines 47-51).

Per Claim 8:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein the target system includes a bus and at least a portion of the software code executes on the bus (column 3, lines 15-29).

Per Claim 9:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein said searching (a) further comprises searching for a plurality of desired instructions (column 4, lines 5-13).

Per Claim 11:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein said searching (a) comprises searching for a desired instruction disposed at the beginning of a program function (column 4, lines 5-13).

Per Claim 12:

The rejection of claim 11 is incorporated, and Heisch further teaches wherein the desired instruction comprises a Move From Special Register instruction (column 4, lines 21-29).

Per Claim 13:

The rejection of claim 11 is incorporated, and Heisch further teaches wherein said searching (a) comprises searching for an other desired instruction disposed at the ending of a program function (column 4, lines 21-29).

Per Claim 14:

The rejection of claim 13 is incorporated, and Heisch further teaches wherein the other desired instruction comprises a Move To Special Register instruction (column 4, lines 21-29).

Per Claim 15:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein said searching (a) comprises searching for at least one desired instruction associated with data manipulation (column 4, lines 21-29).

Per Claim 18:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein said searching (a) comprises searching for a branch instruction, and searching for the desired instruction in a portion of the software code indicated by the branch instruction, the desired instruction being disposed outside of the range of addresses identified (column 4, lines 5-13).

Per Claim 19:

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The rejection of claim 1 is incorporated, and Heisch further teaches wherein the desired instruction comprises an EABI instruction (column 4, lines 5-13).

Per Claim 22:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein the program flow change instruction comprises an instruction to read from an odd address (column 4, lines 5-13).

Per Claim 23:

The rejection of claim 22 is incorporated, and Heisch further teaches wherein the program flow change instruction comprises an instruction to add an odd integer to an address (column 4, lines 5-13).

Per Claim 24:

The rejection of claim 23 is incorporated, and Heisch further teaches wherein the routine has a decoding instruction to identify the odd integer and execute an instruction corresponding thereto (column 4, lines 37-45).

Per Claim 25:

The rejection of claim 1 is incorporated, and Heisch further teaches comprising a plurality of program flow change instructions corresponding to a plurality of user-selectable operations (column 4, lines 5-29).

Per Claim 26:

The rejection of claim 25 is incorporated, and Heisch further teaches wherein each of said plurality of user-selectable operations is selected from the group consisting of: indicating entry and exit of a function; indicating entry and exit of a function and tracing execution of a function; indicating entry and exit of a function, tracing execution of the function, and indicating entry and exit and tracing execution of other functions called by the function; indicating Entry and Exit of a function, tracing execution of the function, and indicating Entry and Exit without tracing execution of other functions called by the function; indicating data manipulation; inserting patch code into a code portion; indicating the sequence of program execution; and indicating changes to variables (column 4, lines 5-29).

Per Claim 27:

The rejection of claim 26 is incorporated, and Heisch further teaches wherein said inserting (c) comprises: (i) selecting at least one output code statement to perform a selected one of said user-selectable operations; (ii) saving a copy of the output code statement and the desired instruction; (iii) determining the size of the output code statement, the branch instruction, the desired instruction, and restore code to restore the desired instruction; and (iv) allocating memory in the buffer of the size determined in (iii); and (v), inserting the output code statement, the branch instruction, the desired instruction, and restore code, into the allocated memory (column 4, lines 30-45).

Per Claim 28:

The rejection of claim 27 is incorporated, and Heisch further teaches wherein said saving (ii) comprises saving a copy of the program flow change instruction and the desired instruction in a translation table (column 4, lines 30-45).

Per Claim 29:

The rejection of claim 27 is incorporated, and Heisch further teaches wherein said selecting (i) comprises analyzing a symbol table of the software code (column 3, lines 47-51).

Per Claim 30:

The rejection of claim 27 is incorporated, and Heisch further teaches wherein said selecting (i) comprises calling a function selected from the group consisting of a printf or scanf function (column 3, lines 47-51).

Per Claim 31:

The rejection of claim 27 is incorporated, and Heisch further teaches wherein the restore code comprises code to save and restore original register contexts (column 4, lines 30-45).

Per Claim 32:

The rejection of claim 26 is incorporated, and Heisch further teaches wherein said searching (a) comprises identifying addresses in the program code that are associated with each instance of a modification of an identified variable/structure, and locating a final instruction for

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each instance of a modification, the final instruction being said desired instruction (column 4, lines 5-13).

Per Claim 33:

The rejection of claim 32 is incorporated, and Heisch further teaches wherein said inserting (c) comprises: (i) selecting at least one output code statement to transfer data to the buffer; (ii) saving a copy of the output code statement and the desired instruction; (iii) determining the size of the output code statement, the desired instruction, and restore code to restore the desired instruction; (iv) allocating memory in the buffer of the size determined in (iii), and to run the trace acquisition code; (v) inserting the output code statement, the branch instruction, the desired instruction, and restore code, into the allocated memory (column 4, lines 21-29).

Per Claim 34:

The rejection of claim 33 is incorporated, and Heisch further teaches wherein said allocating (iv) further comprises allocating additional memory of the size determined in (iii) for each said instance of a modification of an identified variable/structure (column 4, lines 21-29).

Per Claim 35:

The rejection of claim 34 is incorporated, and Heisch further teaches further comprising repeating said inserting (v) for each said instance (column 4, lines 21-29).

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Per Claim 36:

The rejection of claim 33 is incorporated, and Heisch further teaches wherein said saving (ii) comprises saving a copy of the program flow change instruction and the desired instruction in a translation table (column 4, lines 37-45).

Per Claim 37:

The rejection of claim 33 is incorporated, and Heisch further teaches wherein said selecting (i) comprises analyzing a symbol table of the software code (column 3, lines 47-51).

Per Claim 38:

The rejection of claim 33 is incorporated, and Heisch further teaches wherein said selecting (i) comprises calling a function selected from the group consisting of a printf or scanf function (column 3, lines 47-51).

Per Claim 39:

The rejection of claim 33 is incorporated, and Heisch further teaches wherein the restore code comprises code to save and restore original register contexts (column 4, lines 30-45).

Per Claim 40:

The rejection of claim 1 is incorporated, and Heisch further teaches further comprising reversing said replacing (b), and inserting (c), to restore the software code (column 4, lines 30-45).

Per Claim 41:

The rejection of claim 1 is incorporated, and Heisch further teaches wherein at least one of said searching (a), replacing (b), and inserting (c), is performed during run time execution of the software code (column 4, lines 30-45).

Per Claim 42:

The rejection of claim 41 is incorporated, and Heisch further teaches wherein at least one of said searching (a), replacing (b), and inserting (c), is performed after the software code is compiled (column 4, lines 30-45).

Per Claim 43:

The rejection of claim 42 is incorporated, and Heisch further teaches wherein execution of the software code is halted during performance of said at least one of said searching (a), replacing (b), and inserting (c) (column 4, lines 30-45).

Per Claim 44:

The rejection of claim 1 is incorporated, and Heisch further teaches comprising executing the software code (column 4, lines 30-45).

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Per Claim 46:

This is a system version of the claimed method discussed above, claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above.

Thus, accordingly, this claim is also obvious.

Per Claim 48:

This is an article of manufacture version of the claimed method discussed above, claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also obvious.

Per Claim 49:

This is a computer readable program code version of the claimed method discussed above, claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also obvious.

22. Claims 20-21, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heisch (U.S. 5,689,712) in view of Wu (U.S. 6,668,372), and further in view of Davidson (U.S. 5,664,191).

Per Claim 20:

The rejection of claim 1 is incorporated, and further, the combination Heisch and Wu does not explicitly teach wherein the searching (a) comprises using debug information to identify

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the desired instruction. Davidson teaches wherein the searching (a) comprises using debug information to identify the desired instruction (column 2, lines 46-50).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by the combination Heisch and Wu to include wherein the searching (a) comprises using debug information to identify the desired instruction using the teaching of Davidson. The modification would be obvious because one of ordinary skill in the art would be motivated to identify basic blocks more efficiently.

Per Claim 21:

The rejection of claim 20 is incorporated, and Davidson further teaches wherein the searching (a) comprises using compiler-derived debug information in a format selected from the group consisting of stabs, elf, and dwarf formats (column 5, lines 22-27).

Per Claim 45:

This is another version of the claimed method discussed above (claims 1 and 20), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also obvious.

Per Claim 47:

This is a system version of the claimed method discussed above (claims 1 and 20), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also obvious.

Allowable Subject Matter

23. Claims 10, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (See the Office Action, Mailed on 04/29/2004, par. 10 and 11).

Response to Arguments

24. Applicant's arguments with respect to claims 1-49 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

25. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

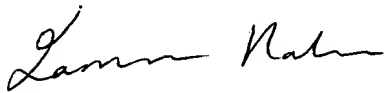
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

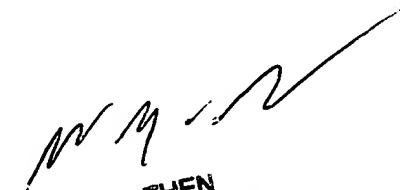
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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



QN

December 8, 2005



WEI Y. ZHEN
PRIMARY EXAMINER